Refine Search

Your wildcard search against 10000 terms has yielded the results below.

Your result set for the last L# is incomplete.

The probable cause is use of unlimited truncation. Revise your search strategy to use limited truncation.

Search Results -

Terms	Documents
L12 and super$	6

Database: US Pre-Grant Publication Full-Text Database; US Patents Full-Text Database; US OCR Full-Text Database; EPO Abstracts Database; JPO Abstracts Database; Derwent World Patents Index; IBM Technical Disclosure Bulletins

Search: L14

Refine Search

Recall Text | Clear | Interrupt

Search History

DATE: Tuesday, March 09, 2004 Printable Copy Create Case

Set Name side by side	Query	Hit Count	Set Name result set
DB=USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=ADJ			
L14	L12 and super$	6	L14
L13	L12 and carbon dioxide	2	L13
L12	(extract$ or isolat$ or separ$) near10 (turmeric or circuma)	134	L12
L11	(extract$ or isolat$ or separ$) near10 (tumeric or circuma)	13	L11
L10	(extract$ or isolat$ or separ$) near10 (tumeric or circuma)	13	L10
L9	(circuma)	31	L9
DB=USPT; PLUR=YES; OP=ADJ			
L8	(circuma)	1	L8
DB=USPT,USOC,EPAB,JPAB,DWPI; PLUR=YES; OP=ADJ			
L7	(supercrit$ or carbon dioxide)same (turmeric or circuma)	12	L7
L6	6391364.pn.	2	L6
L5	(supercrit$ or carbon dioxide or co)near7 (turmeric or circuma)	17	L5

L4	L2 near5 (extract$ or isolat$ or separ$ or purif$)	38	L4
L3	L2 near5 (extract)	33	L3
L2	(tumeric or circuma)	679	L2
L1	(supercrit$ or carbon dioxide or co)near7 (tumeric or circuma)	2	L1

END OF SEARCH HISTORY

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NEWS 1		Web Page URLs for STN Seminar Schedule - N. America
NEWS 2		"Ask CAS" for self-help around the clock
NEWS 3	SEP 09	CA/CAplus records now contain indexing from 1907 to the present
NEWS 4	DEC 08	INPADOC: Legal Status data reloaded
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NEWS 6	OCT 10	PCTFULL: Two new display fields added
NEWS 7	OCT 21	BIOSIS file reloaded and enhanced
NEWS 8	OCT 28	BIOSIS file segment of TOXCENTER reloaded and enhanced
NEWS 9	NOV 24	MSDS-CCOHS file reloaded
NEWS 10	DEC 08	CABA reloaded with left truncation
NEWS 11	DEC 08	IMS file names changed
NEWS 12	DEC 09	Experimental property data collected by CAS now available in REGISTRY
NEWS 13	DEC 09	STN Entry Date available for display in REGISTRY and CA/CAplus
NEWS 14	DEC 17	DGENE: Two new display fields added
NEWS 15	DEC 18	BIOTECHNO no longer updated
NEWS 16	DEC 19	CROPU no longer updated; subscriber discount no longer available
NEWS 17	DEC 22	Additional INPI reactions and pre-1907 documents added to CAS databases
NEWS 18	DEC 22	IFIPAT/IFIUDB/IFICDB reloaded with new data and search fields
NEWS 19	DEC 22	ABI-INFORM now available on STN
NEWS 20	JAN 27	Source of Registration (SR) information in REGISTRY updated and searchable
NEWS 21	JAN 27	A new search aid, the Company Name Thesaurus, available in CA/CAplus
NEWS 22	FEB 05	German (DE) application and patent publication number format changes
NEWS 23	MAR 03	MEDLINE and LMEDLINE reloaded
NEWS 24	MAR 03	MEDLINE file segment of TOXCENTER reloaded
NEWS 25	MAR 03	FRANCEPAT now available on STN

NEWS EXPRESS	MARCH 5 CURRENT WINDOWS VERSION IS V7.00A, CURRENT MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP), AND CURRENT DISCOVER FILE IS DATED 3 MARCH 2004
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FILE 'HOME' ENTERED AT 13:12:22 ON 09 MAR 2004

=> index bioscience
FILE 'DRUGMONOG' ACCESS NOT AUTHORIZED

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, AQUASCI, BIOBUSINESS, BIOCOMMERCE, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CANCERLIT, CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI, CROPB, CROPU, DISSABS, DDFB, DDFU, DGENE, DRUGB, DRUGMONOG2, ...' ENTERED AT 13:12:47 ON 09 MAR 2004

68 FILES IN THE FILE LIST IN STNINDEX

Enter SET DETAIL ON to see search term postings or to view search error messages that display as 0* with SET DETAIL OFF.

=> s (supercrit? or carbon dioxide)(P)(turmeric or circuma)
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          0*  FILE ADISNEWS
           2  FILE AGRICOLA
           3  FILE ANABSTR
          0*  FILE BIOCOMMERCE
          10  FILE BIOSIS
          0*  FILE BIOTECHABS
          0*  FILE BIOTECHDS
          3*  FILE BIOTECHNO
           6  FILE CABA
          18  FILE CAPLUS
          1*  FILE CEABA-VTB
          1*  FILE CIN
           1  FILE DRUGU
           1  FILE EMBASE
          4*  FILE ESBIOBASE
  33 FILES SEARCHED...
          0*  FILE FEDRIP
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          0*  FILE FOREGE
         11*  FILE FROSTI
          7*  FILE FSTA
           4  FILE IFIPAT
           4  FILE JICST-EPLUS
          0*  FILE KOSMET
          0*  FILE MEDICONF
           5  FILE MEDLINE
          0*  FILE NTIS
          0*  FILE NUTRACEUT
          9*  FILE PASCAL
          0*  FILE PHARMAML
           2  FILE PROMT
          10  FILE SCISEARCH
           6  FILE TOXCENTER
           6  FILE USPATFULL
  66 FILES SEARCHED...
           6  FILE WPIDS
           6  FILE WPINDEX

  23 FILES HAVE ONE OR MORE ANSWERS,   68 FILES SEARCHED IN STNINDEX
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L1 QUE (SUPERCRIT? OR CARBON DIOXIDE)(P)(TURMERIC OR CIRCUMA)

=> file bioscience
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L2          120 L1
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L3 42 DUP REM L2 (78 DUPLICATES REMOVED)

=> d ibib abs l3 1-42

L3 ANSWER 1 OF 42 PROMT COPYRIGHT 2004 Gale Group on STN

ACCESSION NUMBER: 2003:93575 PROMT
TITLE: Chemotherapy Fatigue Significantly Reduced Through Intervention Using CTF Nutritional Supplement Protocol; Findings to be Presented at Complementary Cancer Care Conference April 11 and 13 in D.C.
SOURCE: PR Newswire, (8 Apr 2003) pp. CGTU00608042003.
PUBLISHER: PR Newswire Association, Inc.
DOCUMENT TYPE: Newsletter
LANGUAGE: English
WORD COUNT: 1077
FULL TEXT IS AVAILABLE IN THE ALL FORMAT

AB WASHINGTON -- WASHINGTON, April 8 /PRNewswire/ -- A new study using the CTF (Chemotherapy Fatigue) nutritional supplement protocol during chemotherapy demonstrated that a properly administered nutritional protocol materially enhanced chemotherapy patients' quality of life. A major side effect of chemotherapy is compromised quality of life including extreme patient fatigue. A human intervention trial conducted on thirty-one patients with recurrent ovarian cancer showed substantially reduced levels of fatigue with the introduction of turmeric-based herbal and nutritional supplements provided by New Chapter, Inc. of Brattleboro, VT. The research, conducted by Earl Surwit, MD along with herbal/supplement consultants Paul Schulick and Tom Newmark, will be presented at the Complementary Cancer Care Conference to be held at the Washington, D.C. Hilton Towers on Friday, April 11, 3:30-5:00 p.m. and Sunday, April 13, 11-12:30 (Herbal and Nutritional Intervention in Cancer Treatment session).

L3 ANSWER 2 OF 42 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 1
ACCESSION NUMBER: 2003:558662 BIOSIS
DOCUMENT NUMBER: PREV200300561669
TITLE: Comparison of yield, composition, and antioxidant activity of turmeric (Curcuma longa L.) extracts obtained using various techniques.
AUTHOR(S): Braga, Mara E. M.; Leal, Patricia F.; Carvalho, Joao E.; Meireles, M. Angela A. [Reprint Author]
CORPORATE SOURCE: LASEFI, DEA/FEA (College of Food Engineering), UNICAMP (State University of Campinas), 13083-970, Caixa Postal 6121, Campinas, SP, Brazil
meireles@fea.unicamp.br
SOURCE: Journal of Agricultural and Food Chemistry, (October 22 2003) Vol. 51, No. 22, pp. 6604-6611. print.
CODEN: JAFCAU. ISSN: 0021-8561.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 26 Nov 2003
Last Updated on STN: 26 Nov 2003

AB **Turmeric** extracts were obtained from two lots of raw material (M and S) using various techniques: hydrodistillation, low pressure solvent extraction, Soxhlet, and **supercritical** extraction using **carbon dioxide** and cosolvents. The solvents and

cosolvents tested were ethanol, isopropyl alcohol, and their mixture in equal proportions. The composition of the extracts was determined by gas chromatography-flame ionization detection (GC-FID) and UV. The largest yield (27%, weight) was obtained in the Soxhlet extraction (**turmeric** (S), ethanol = 1:100); the lowest yield was detected in the hydrodistillation process (2.1%). For the **supercritical** extraction, the best cosolvent was a mixture of ethanol and isopropyl alcohol. Sixty percent of the light fraction of the extracts consisted of arturmerone, (Z)-gamma-atlantone, and (E)-gamma-atlantone, except for the Soxhlet extracts (1:100, ethanol), for which only ar-turmeronol and (Z)-alpha-atlantone were detected. The maximum amount of curcuminoids (8.43%) was obtained using Soxhlet extraction (ethanol/isopropyl alcohol). The Soxhlet and low pressure extract exhibited the strongest antioxidant activities.

L3 ANSWER 3 OF 42 ANABSTR COPYRIGHT 2004 RSC on STN DUPLICATE 2

AB The antioxidant, anticancer and antimycobacterial activities of extracts from ginger (Zingiber officinale Roscoe), rosemary (Rosmarinus officinalis L.) and **turmeric** (Curcuma longa L.) were evaluated. The extracts were obtained by using **supercritical** CO2 with and without ethanol and/or isopropyl alcohol as co-solvent. The antioxidant power of the extracts was assessed by using the reaction between β-carotene and linolenic acid, the antimycobacterial activity against M. tuberculosis was measured by the MABA (microplate alamar blue assay) test, and their anticancer action was tested against nine human cancer ancestries: lung, breast, breast resistant, melanoma, colon, prostate, leukemia and kidney. The rosemary extracts exhibited the strongest antioxidant and the lowest antimycobacterial activities. **Turmeric** extracts showed the greatest antimycobacterial activity. Ginger and **turmeric** extracts showed selective anticancer activities.

L3 ANSWER 4 OF 42 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN DUPLICATE 3

ACCESSION NUMBER: 2003:439852 BIOSIS
DOCUMENT NUMBER: PREV200300439852
TITLE: Antioxidant activity of Smoke Shield in-vitro and in-vivo.
AUTHOR(S): Sreekanth, Kavitha Sivaraman; Sabu, Mandumpal Chacko; Varghese, Leyon; Manesh, Chittezhath; Kuttan, Girija; Kuttan, Ramadasan [Reprint Author]
CORPORATE SOURCE: Amala Cancer Research Centre, Amala Nagar, Thrissur, 680 553, India
amalaresearch@rediffmail.com
SOURCE: Journal of Pharmacy and Pharmacology, (June 2003) Vol. 55, No. 6, pp. 847-853. print.
CODEN: JPPMAB. ISSN: 0022-3573.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 24 Sep 2003
Last Updated on STN: 24 Sep 2003

AB Smoke Shield is a proprietory formulation containing extract of **turmeric** (Curcuma longa), obtained by **supercritical carbon dioxide** gas extraction and post-**supercritical** hydroethanolic extraction, together with extracts of green tea and other spices whose presence synergistically increases the activity of **turmeric**. This study evaluates the antioxidant potentials of Smoke Shield in-vitro and in experimental animals, as well as in human models. Smoke Shield was found to scavenge superoxide radicals generated by photoreduction of riboflavin (50% inhibitory concentration=91 mug mL-1) and hydroxyl radicals generated by Fenton reaction (50% inhibitory concentration=95 mug mL-1) and reduced lipid peroxidation. Administration of Smoke Shield to mice was found to elevate antioxidant enzymes such as catalase and superoxide dismutase in blood as well as in liver and kidney. Glutathione-S-transferase activity was found to be significantly elevated in liver and kidney of animals treated with

Smoke Shield. Glutathione levels were also significantly elevated in blood. Glutathione reductase was significantly elevated in kidney. Administration of Smoke Shield decreased the lipid peroxidation in serum, liver and kidney, as well as reduced the levels of conjugated dienes and hydroperoxides. Administration of Smoke Shield to smokers was found to increase the superoxide dismutase and glutathione in blood and decrease glutathione peroxidase. Smoke Shield inhibited phase I enzymes as represented by aniline-hydroxylase and aminopyrene-demethylase in-vitro. These results indicate that Smoke Shield has potent antioxidant activity, could inhibit phase I enzymes and increase detoxifying enzymes, which makes it an effective chemoprotective herbal formulation.

L3 ANSWER 5 OF 42 DRUGU COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 2003-46007 DRUGU P
TITLE: The presence of calcium channel blocker(s) in turmeric.
AUTHOR: Gilani A H; Ghayur M N; Majeed K; Shaheen F; Shah A J
CORPORATE SOURCE: Univ.Aga-Khan
LOCATION: Karachi, Pakistan
SOURCE: Br.J.Pharmacol. (140, Proc.Suppl., 50P, 2003) 3 Ref.
CODEN: BJPCBM ISSN: 0007-1188
AVAIL. OF DOC.: Department of Biological and Biomedical Sciences, The Aga Khan University Medical College, Karachi, Pakistan.
LANGUAGE: English
DOCUMENT TYPE: Journal
FIELD AVAIL.: AB; LA; CT
FILE SEGMENT: Literature
AN 2003-46007 DRUGU P
AB Extracts of Curcuma domestica rhizome and curcumin (Sigma-Chemical) relaxed spontaneous contractions in rabbit jejunal tissue in vitro, and inhibited K+-induced contractions. These data indicate that **turmeric** and its known active ingredient curcumin exhibit spasmolytic activity possibly through blockade of calcium influx and this activity may explain some of its folkloric uses, such as, abdominal cramps, diarrhea and asthma. (conference abstract: British Pharmacological Society Meeting, Guildford, U.K., June 25-27, 2003).
ABEX Fresh **turmeric** rhizomes (430 g) were cleaned, ground and macerated at RT in 70% aqueous-methanol for 3 days thrice. The combined filtrate was dried to yield 19 g of thick, brown colored crude extract. Segments of rabbit jejunum, rat stomach fundus, guinea- pig ileum, colon, and trachea were suspended separately in 10 ml tissue baths, containing Krebs or Tyrode's solution and aerated with a mixture of 5% **carbon dioxide** in oxygen. The plant extract dose-dependently (0.03-0.3 mg/ml) relaxed the spontaneous contractions of the rabbit jejunum, with EC50 values of 0.18 mg/ml (n=5). When tested against high K+ (80 mM)-induced contraction, it caused a dose-dependent inhibition at similar doses suggestive of calcium channel blockade (CCB). The CCB activity was confirmed when the crude extract dose-dependently (0.03-0.3 mg/ml shifted the Ca2+ dose-response curves in jejunum, constructed in a Ca2+ free medium, to the right. Similarly, it caused inhibition of agonist-induced contractions in rat stomach fundus and guinea-pig ileum, colon and tracheal preparations in a non-specific manner indicating the presence of general spasmolytic activity, a typical characteristic of calcium antagonists. When curcumin was tested for its possible spasmolytic activity, it exhibited inhibitory effect both in spontaneous and high K+ (80 mM)-induced contractions in isolated rabbit jejunum preparations suggestive of calcium channel blockade. The inhibitory effect was dose-dependent, mediated in the dose range of 1-30 uM. In the acute toxicity test, the extract was devoid of any apparent toxic effect up to the dose of 3 g/kg. (TOB)

L3 ANSWER 6 OF 42 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 4
ACCESSION NUMBER: 2002:348031 BIOSIS
DOCUMENT NUMBER: PREV200200348031

TITLE: Anti-inflammatory, sleep-promoting herbal composition and method of use.
AUTHOR(S): Newmark, Thomas [Inventor]; Schulick, Paul [Inventor]
PATENT INFORMATION: US 6391346 May 21, 2002
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (May 21, 2002) Vol. 1258, No. 3. http://www.uspto.gov/web/menu/patdata.html. e-file. CODEN: OGUPE7. ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 19 Jun 2002
Last Updated on STN: 19 Jun 2002

AB An orally administered composition capable of reducing inflammation in animals, preferably humans, while promoting sleep for such animals, contains a therapeutically effective amount of a post-**supercritical carbon dioxide** hydroalcoholic extract of ginger, therapeutically effective amounts of **supercritical carbon dioxide** extracts of hops, chamomile, ginger, valerian and melissa; and therapeutically effective amounts of hydroalcoholic extracts of holy basil, **turmeric**, scutellaria baicalensis, chamomile and hops. The composition is preferably orally administered on a daily basis for at least about 4 weeks.

L3 ANSWER 7 OF 42 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN DUPLICATE 5
ACCESSION NUMBER: 2002:337479 BIOSIS
DOCUMENT NUMBER: PREV200200337479
TITLE: Anti-Inflammatory herbal composition and method of use.
AUTHOR(S): Newmark, Thomas [Inventor]; Schulick, Paul [Inventor]
PATENT INFORMATION: US 6387416 May 14, 2002
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (May 14, 2002) Vol. 1258, No. 2. http://www.uspto.gov/web/menu/patdata.html. e-file. CODEN: OGUPE7. ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 12 Jun 2002
Last Updated on STN: 12 Jun 2002

AB An orally or topically administered composition capable of reducing inflammation in animals, preferably humans, suffering from inflammation, contains a therapeutically effective amount of a post-**supercritical carbon dioxide** alcoholic extract of ginger; therapeutically effective amounts of **supercritical carbon dioxide** extracts of rosemary, **turmeric**, oregano and ginger (preferably certified organic ginger); and therapeutically effective amounts of hydroalcoholic extracts of holy basil, **turmeric**, scutellariae baicalensis, rosemary, green tea, huzhang, Chinese goldthread, and barberry. The composition is preferably orally administered on a daily basis for at least about 4 weeks.

L3 ANSWER 8 OF 42 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 6
ACCESSION NUMBER: 2002:637466 CAPLUS
DOCUMENT NUMBER: 137:159370
TITLE: Composition and method for smoke detoxification
INVENTOR(S): Newmark, Thomas M.; Schulick, Paul
PATENT ASSIGNEE(S): New Chapter, Inc., USA
SOURCE: PCT Int. Appl., 24 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002063982	A1	20020822	WO 2002-US2427	20020130
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2002136786	A1	20020926	US 2002-58299	20020130
EP 1357811	A1	20031105	EP 2002-702095	20020130
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

PRIORITY APPLN. INFO.: US 2001-267428P P 20010209
WO 2002-US2427 W 20020130

AB A method is provided for effecting smoke detoxification in a human by using a composition that is made of effective amts. of **supercrit**. extract and hydroalcoholic extract of **turmeric**.

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 9 OF 42 IFIPAT COPYRIGHT 2004 IFI on STN DUPLICATE 7

AN 10193082 IFIPAT;IFIUDB;IFICDB

TITLE: COMPOSITION AND METHOD FOR SMOKE DETOXIFICATION; **SUPERCRITICAL** AND HYDROALCOHOLIC EXTRACTS OF **TURMERIC**

INVENTOR(S): Newmark; Thomas, St. Louis, MO, US
Schulick; Paul, Brattleboro, VT, US

PATENT ASSIGNEE(S): Unassigned

AGENT: PATTON BOGGS LLP ATTORNEYS AT LAW, 2550 M Street, NW, Washington, DC, 20037-1350, US

	NUMBER	PK	DATE
PATENT INFORMATION:	US 2002136786	A1	20020926
APPLICATION INFORMATION:	US 2002-58299		20020130

	NUMBER	DATE
PRIORITY APPLN. INFO.:	US 2001-267428P	20010209 (Provisional)
FAMILY INFORMATION:	US 2002136786	20020926

DOCUMENT TYPE: Utility
Patent Application - First Publication

FILE SEGMENT: CHEMICAL
APPLICATION

NUMBER OF CLAIMS: 24

AB A method is provided for effecting smoke detoxification in a human by using a composition that is made of effective amounts of **supercritical** extract and hydroalcoholic extract of **turmeric**.

CLMN 24

L3 ANSWER 10 OF 42 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN

ACCESSION NUMBER: 2002-752110 [82] WPIDS

DOC. NO. CPI: C2002-213323

TITLE: Preparation of dry plant extract, useful in medicaments, comprises extracting with solvents of different lipophilicity then drying and combining the extracts.

DERWENT CLASS: B04

INVENTOR(S): JOSEPH, H; MAERZ, R

PATENT ASSIGNEE(S): (BION-N) BIONORICA ARZNEIMITTEL AG

COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
DE 10112168	A1	20021002	(200282)*		5

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
DE 10112168	A1	DE 2001-10112168	20010312

PRIORITY APPLN. INFO: DE 2001-10112168 20010312
AN 2002-752110 [82] WPIDS
AB DE 10112168 A UPAB: 20021220
NOVELTY - Production of a dry extract (I) from plant materials (II), comprises:
(A) subjecting (II) to at least two separate extractions;
(B) separately drying the extracts; and
(C) combining the obtained dry extracts in the required ratio.
DETAILED DESCRIPTION - Production of a dry extract (I), having a controllable content of lipophilic and hydrophilic components, from plant materials (II) containing essential oils and phenols, comprises:
(A) subjecting (II) to at least two separate extractions with solvents of different lipophilicity and separately recovering the extracts;
(B) separately drying the extracts; and
(C) combining the obtained dry extracts in the required ratio.
INDEPENDENT CLAIMS are also included for:
(1) (I); and
(2) Medicament preparation containing (I).
USE - (I) is used in medicaments (claimed). Essential oils and phenols contained in plants typically have antiinflammatory, bacteriostatic, hyperemic and/or secretolytic activity.
ADVANTAGE - The content of lipophilic and hydrophilic components can be controlled, specifically to provide final extracts (I) having a standardized content of essential oil and phenolic active agents.
Dwg.0/0

L3 ANSWER 11 OF 42 CABA COPYRIGHT 2004 CABI on STN DUPLICATE 8
ACCESSION NUMBER: 2003:84762 CABA
DOCUMENT NUMBER: 20033044272
TITLE: **Supercritical** CO2 extraction of curcumin and essential oil from the rhizomes of **turmeric** (Curcuma longa L.)
AUTHOR: Marongiu, B.; Porcedda, S.; Caredda, A.; Gioannis, B. de; Piras, A.; de Gioannis, B.
CORPORATE SOURCE: Dipartimento di Scienze Chimiche, Universita di Cagliari, Cittadella Universitaria di Monserrato, 09042 Cagliari, Italy. maronb@unica.it
SOURCE: Journal of Essential Oil-Bearing Plants, (2002) Vol. 5, No. 3, pp. 144-153. 10 ref.
Publisher: H.K.L. Bhalla. Dehra Dun
ISSN: 0972-060X
PUB. COUNTRY: India
DOCUMENT TYPE: Journal
LANGUAGE: English
ENTRY DATE: Entered STN: 20030606
Last Updated on STN: 20030606
AB This paper reports the use of supercritical CO2 extraction for the isolation of curcumin and essential oil from the rhizomes of C. longa, examines the effects of extraction conditions (flow rate, pressure and

temperature) on the yield and composition of the resulting essential oil, and discusses the possibility of obtaining curcumin and curcuminoids at high pressure without co-solvent (ethanol) addition.

L3 ANSWER 12 OF 42 BIOTECHNO COPYRIGHT 2004 Elsevier Science B.V. on STN
ACCESSION NUMBER: 2002:34881682 BIOTECHNO
TITLE: Boron deficiency induced changes in translocation of .sup.1.sup.4CO.sub.2-photosynthate into primary metabolites in relation to essential oil and curcumin accumulation in **turmeric** (Curcuma longa L.)
AUTHOR: Dixit D.; Srivastava N.K.; Sharma S.
CORPORATE SOURCE: D. Dixit, Ctrl. Inst. of Med./Aromatic Plants, P.O. CIMAP, Lucknow - 226 015, India.
E-mail: cimap@satyam.net.in
SOURCE: Photosynthetica, (2002), 40/1 (109-113), 30 reference(s)
CODEN: PHSYB5 ISSN: 0300-3604
DOCUMENT TYPE: Journal; Article
COUNTRY: Netherlands
LANGUAGE: English
SUMMARY LANGUAGE: English
AN 2002:34881682 BIOTECHNO
AB Changes in leaf growth, net photosynthetic rate (P.sub.N), incorporation pattern of photosynthetically fixed .sup.1.sup.4CO.sub.2 in leaves 1-4 from top, roots, and rhizome, and in essential oil and curcumin contents were studied in **turmeric** plants grown in nutrient solution at boron (B) concentrations of 0 and 0.5 g m.sup.-.sup.3. B deficiency resulted in decrease in leaf area, fresh and dry mass, chlorophyll (Chl) content, and P.sub.N and total .sup.1.sup.4CO.sub.2 incorporated at all leaf positions, the maximum effect being in young growing leaves. The incorporation of .sup.1.sup.4CO.sub.2 declined with leaf position being maximal in the youngest leaf. B deficiency resulted in reduced accumulation of sugars, amino acids, and organic acids at all leaf positions. Translocation of the metabolites towards rhizome and roots decreased. In rhizome, the amount of amino acids increased but content of organic acids did not show any change, whereas in roots there was decrease in contents of these metabolites as a result of B deficiency. Photoassimilate partitioning to essential oil in leaf and to curcumin in rhizome decreased. Although the curcumin content of rhizome increased due to B deficiency, the overall rhizome yield and curcumin yield decreased. The influence of B deficiency on leaf area, fresh and dry masses, CO.sub.2 exchange rate, oil content, and rhizome and curcumin yields can be ascribed to reduced photosynthate formation and translocation.

L3 ANSWER 13 OF 42 FROSTI COPYRIGHT 2004 LFRA on STN
ACCESSION NUMBER: 583797 FROSTI
TITLE: Curcuma: spice, functional food and natural remedy.
AUTHOR: Quirin K.W.
SOURCE: Nutraceuticals Now, 2002, (Spring), 26-29 (0 ref.)
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Curcuma (**turmeric**) spice is widely used in the food industry for as a flavouring and colouring agent. Curcuma also has functional properties: it is choleretic, antihepatotoxic, antihyperlipidaemic, antiinflammatory, antioxidative, anticarcinogenic, antimicrobial, antiviral and detoxifying. Curcuma has no major side effects and may be used as a natural remedy, although long-term application of a high dose may induce gastrointestinal effects such as gastric ulcers. The compositions of essential oils obtained from Curcuma longa and Curcuma xanthorriza by **supercritical** and aqueous alcohol extraction are tabulated.

L3 ANSWER 14 OF 42 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 9

ACCESSION NUMBER: 2001:436170 BIOSIS
DOCUMENT NUMBER: PREV200100436170
TITLE: Herbal composition for reducing inflammation and methods of using same.
AUTHOR(S): Newmark, Thomas [Inventor]; Schulick, Paul [Inventor]
PATENT INFORMATION: US 6264995 July 24, 2001
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (July 24, 2001) Vol. 1248, No. 4. e-file. CODEN: OGUPE7. ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 12 Sep 2001
Last Updated on STN: 22 Feb 2002

AB An herbal composition reducing inflammation in bones and joints by inhibiting the enzyme cyclooxygenase-2 is prepared from holy basil, **turmeric**, ginger, green tea, rosemary, huzhang, Chinese goldthread, barberry, oregano and scutellariae baicalensis. More particularly, the herbal composition of the present invention contains therapeutically effective amounts of the **supercritical** extracts of ginger, rosemary and oregano, and therapeutically effective amounts of extracts of holy basil, **turmeric**, green tea, huzhang, Chinese goldthread, barberry, rosemary and scutellariae baicalensis. The herbal composition can be administered orally, topically or parenterally. Particularly preferred embodiments are soft gel capsules for oral administration and creams for topical application. In addition to reducing inflammation, the herbal composition also promotes healthy joint function and, because it inhibits cyclooxygenase-2 (COX-2), the composition also promotes normal cell growth. Furthermore, the herbal composition contains organic anti-aging constituents that inactivate oxygen free radicals, thereby providing antioxidant benefits in addition to anti-inflammatory benefits.

L3 ANSWER 15 OF 42 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 2002-131271 [18] WPIDS
DOC. NO. CPI: C2002-040449
TITLE: Supercritical CO2 extraction and separation method of effective components of curcumae longae rhizome.
DERWENT CLASS: B04 D13 D21 E24
INVENTOR(S): JIN, B; XIANG, Z; YAO, Y
PATENT ASSIGNEE(S): (GUAN-N) GUANGZHOU MEICHEN PHARM CO LTD
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
CN 1319418	A	20011031	(200218)*		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
CN 1319418	A	CN 2001-107480	20010120

PRIORITY APPLN. INFO: CN 2001-107480 20010120
AN 2002-131271 [18] WPIDS
AB CN 1319418 A UPAB: 20020319
NOVELTY - The method for extracting and separating effective components of **turmeric** is characterized by that by **supercritical** CO2 extraction technique, ethanol aqueous solution is used as entrainment agent, and by **supercritical** CO2 drying and molecular distillation process to obtain high-quality **turmeric** volatile oil and high-purity **turmeric** colouring matter extract. The obtained **turmeric** colouring matter powder is uniform in grain

size, good in fluidity, less likely to absorb moisture, can be directly used as raw material intermediate in the fields of food, medicine and cosmetics, etc.
Dwg.0/0

L3 ANSWER 16 OF 42 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 10
ACCESSION NUMBER: 2000:774977 CAPLUS
DOCUMENT NUMBER: 134:55648
TITLE: **Supercritical** CO2 Extraction of Curcumins and Essential Oil from the Rhizomes of **Turmeric** (Curcuma longa L.)
AUTHOR(S): Chassagnez-Mendez, Angel L.; Machado, Nelio T.; Araujo, Marilena E.; Maia, J. G.; Meireles, M. Angela A.
CORPORATE SOURCE: LAOS Departamento de Engenharia Quimica, UFPA, Belem, 66050-970, Brazil
SOURCE: Industrial & Engineering Chemistry Research (2000), 39(12), 4729-4733
CODEN: IECRED; ISSN: 0888-5885
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB **Turmeric** rhizomes were extracted with **supercrit**. CO2 and **supercrit**. CO2 + ethanol. Extraction expts. were carried out at pressures of 25 and 30 MPa and temps. of 313 and 318 K. The influence of the drying temperature of the raw material on the extraction yield and curcuminoids profile was evaluated. The higher content of curcuminoids in the exts. was obtained by **supercrit**. fluid extraction from rhizomes dried at 343 K using CO2 + ethanol. The identification of curcuminoids in both the extract and the residual solid was performed by both spectrophotometry and HPLC. The composition of the essential oil was determined by gas chromatog. mass spectrometry. A math. model was used to describe the overall extraction curves. The mass transfer inside the solid matrix was described by a linear 1st-order desorption model, whereas the transfer in the fluid phase was described by a convective mass-transfer model. The math. model fitted well the exptl. data.
REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 17 OF 42 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 11
ACCESSION NUMBER: 2001:13778 AGRICOLA
DOCUMENT NUMBER: IND22089964
TITLE: **Supercritical carbon dioxide** extraction of **turmeric** (Curcuma longa).
AUTHOR(S): Gopalan, B.; Goto, M.; Kodama, A.; Hirose, T.
AVAILABILITY: DNAL (381 J8223)
SOURCE: Journal of agricultural and food chemistry, June 2000. Vol. 48, No. 6. p. 2189-2192
Publisher: Washington, D.C. : American Chemical Society.
CODEN: JAFCAU; ISSN: 0021-8561
NOTE: Includes references
PUB. COUNTRY: District of Columbia; United States
DOCUMENT TYPE: Article
FILE SEGMENT: U.S. Imprints not USDA, Experiment or Extension
LANGUAGE: English

L3 ANSWER 18 OF 42 JICST-EPlus COPYRIGHT 2004 JST on STN

ACCESSION NUMBER: 1000450293 JICST-EPlus
TITLE: Fractionation of **Turmeric** Oil by **Supercritical** Fluid Chromatography.
AUTHOR: BEGAN G; GOTO M; KODAMA A; HIROSE T
CORPORATE SOURCE: Kumamoto Univ.
SOURCE: Kagaku Kogakkai Nenkai Kenkyu Happyo Koen Yoshishu, (2000) vol. 65th, pp. 717. Journal Code: X0547A (Fig. 3, Ref. 2)
PUB. COUNTRY: Japan
DOCUMENT TYPE: Conference; Short Communication
LANGUAGE: English
STATUS: New

L3 ANSWER 19 OF 42 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 12
ACCESSION NUMBER: 2002:12600 AGRICOLA
DOCUMENT NUMBER: IND23251330
TITLE: Response surfaces of total oil yield of **turmeric** (Curcuma longa) in **supercritical carbon dioxide**.
AUTHOR(S): Began, G.; Goto, M.; Kodama, A.; Hirose, T.
AVAILABILITY: DNAL (TP368.C3)
SOURCE: Food research international, 2000. Vol. 33, No. 5. p. 341-345
Publisher: Oxford : Elsevier Science Ltd.
CODEN: FORIEU; ISSN: 0963-9969
NOTE: Includes references
PUB. COUNTRY: England; United Kingdom
DOCUMENT TYPE: Article
FILE SEGMENT: Non-U.S. Imprint other than FAO
LANGUAGE: English
AB The process variables pressure, temperature and flow rate were studied for optimisation of total oil yield by response surface methodology following a Box-Behnken design of experiments. The results indicated: (a) a rise in the temperature of extraction leads to decrease in oil yield. (b) The optimum pressure for the extraction of oil was found to be 22.5 MPa. (c) general increase in oil yield with an increase in flow rate. The experimental oil yield is in good agreement with the predicted one. The response surface methodology used in this study was able to predict the optimal extraction conditions for the total yield of turmeric oil.

L3 ANSWER 20 OF 42 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 13
ACCESSION NUMBER: 2000:659350 CAPLUS
DOCUMENT NUMBER: 133:334243
TITLE: Pigments and their solubility in and extractability by supercritical CO2. Part 1. The case of curcumin
AUTHOR(S): Baumann, W.; Rodrigues, S. V.; Viana, L. M.
CORPORATE SOURCE: Institut fur Physikalische Chemie, Universitat Mainz, Mainz, 55099, Germany
SOURCE: Brazilian Journal of Chemical Engineering (2000), 17(3), 323-328
CODEN: BJCEFZ; ISSN: 0104-6632
PUBLISHER: Associacao Brasileira de Engenharia Quimica
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A specially designed high-pressure cell was used simultaneously as extractor/autoclave and photometric cell in a Perkin Elmer Lambda 5 spectrophotometer. Based on this cell, a simple method was developed to determine the extractability of pigments by pure and by modified **supercrit**. (s.c.) CO2. The method is demonstrated with curcumin from **turmeric**. With s.c. CO2 modified by 10% EtOH, the extraction yield for curcumin from 2 com. finely ground dry **turmeric**

samples was about 100%, measured by reference to the (complete) extraction of samples of the same charge with pure EtOH under standard conditions. Extractable curcumin content was from 1.8 to 2.5%, with 3 samples of **turmeric** of different origins.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 21 OF 42 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 14

ACCESSION NUMBER: 2000:659349 CAPLUS

DOCUMENT NUMBER: 134:99853

TITLE: A mass transfer model applied to the **supercritical** extraction with CO2 of curcumins from **turmeric** rhizomes (Curcuma longa L)

AUTHOR(S): Chassagnez-Mendez, A. L.; Correa, N. C. F.; Franca, L. F.; Machado, N. T.; Araujo, M. E.

CORPORATE SOURCE: Laboratorio de Operacoes de Separacao (LAOS), Departamento de Engenharia Quimica, UFPA, Belem, CEP-66050-970, Brazil

SOURCE: Brazilian Journal of Chemical Engineering (2000), 17(3), 315-322
CODEN: BJCEFZ; ISSN: 0104-6632

PUBLISHER: Associacao Brasileira de Engenharia Quimica

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Increasing restrictions on the use of artificial pigments in the food industry, imposed by the international market, have increased the importance of raw materials containing natural pigments. Of those natural substances with potential applications, **turmeric** rhizomes (Curcuma longa L) are one of the most important natural sources of yellow coloring. Three pigments (curcumin, desmetoxycurcumin, and bis-desmetoxycurcumin) constitute the curcuminoids. These pigments are used in the food industry as substitutes for synthetic dyes like tartrazin. Extraction of curcuminoids from tumeric rhizomes with **supercrit**. CO2 can be applied as an alternative method to obtain curcuminoids, as natural pigments are in general unstable, and hence degrade when submitted to extraction with organic solvents at high temps. Extraction expts. were carried out in a **supercrit**. extraction pilot plant at pressures between 25 and 30 MPa and a temperature of 318 K. The influence of drying pretreatment on extraction yield was evaluated by analyzing the mass transfer kinetics and the content of curcuminoids in the exts. during the course of extraction The chemical identification of curcuminoids in both the extract and the residual solid was performed by spectrophotometry. Mass transfer within the solid matrix was described by a linear first-order desorption model, while that in the gas phase was described by a convective mass transfer model. Exptl. results showed that the concentration profile for curcuminoids during the **supercrit**. extraction process was higher when the **turmeric** rhizomes were submitted to a drying pretreatment at 343 K.

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 22 OF 42 Elsevier BIOBASE COPYRIGHT 2004 Elsevier Science B.V. on STN

ACCESSION NUMBER: 2001005741 ESBIOBASE

TITLE: Partitioning of .sup.1.sup.4C-photosynthate of leaves in roots, rhizome, and in essential oil and curcumin in **turmeric** (Curcuma longa L.)

AUTHOR: Dixit D.; Srivastava N.K.

CORPORATE SOURCE: D. Dixit, Centr. Inst. Medicinal/Arom. Plants, P.O. CIMAP, Kukrail Picnic Spot Road, Lucknow-226015, India.
E-mail: cimap@satyam.net.in

SOURCE: Photosynthetica, (2000), 38/2 (275-280), 22 reference(s)
CODEN: PHSYB5 ISSN: 0300-3604
DOCUMENT TYPE: Journal; Article
COUNTRY: Netherlands
LANGUAGE: English
SUMMARY LANGUAGE: English

AB Incorporation of photosynthetically fixed .sup.1.sup.4C was studied at different time intervals of 12, 24, and 36 h in various plant parts - leaf 1 to 4 from apex, roots, and rhizome - into primary metabolites - sugars, amino acids, and organic acids, and secondary metabolites - essential oil and curcumin - in **turmeric**. The youngest leaves were most active in fixing .sup.1.sup.4C at 24 h. Fixation capacity into primary metabolites decreased with leaf position and time. The primary metabolite levels in leaves were maximal in sugars and organic acids and lowest in amino acids. Roots as well as rhizome received maximum photoassimilate from leaves at 24 h; this declined with time. The maximum metabolite concentrations in the roots and rhizome were high in sugars and organic acids and least in amino acids. .sup.1.sup.4C incorporation into oil in leaf and into curcumin in rhizome was maximal at 24 h and declined with time. These studies highlight importance of time-dependent translocation of .sup.1.sup.4C-primary metabolites from leaves to roots and rhizome and their subsequent biosynthesis into secondary metabolite, curcumin, in rhizome. This might be one of factors regulating the secondary metabolite accumulation and rhizome development.

L3 ANSWER 23 OF 42 FROSTI COPYRIGHT 2004 LFRA on STN
ACCESSION NUMBER: 550689 FROSTI
TITLE: Natural food colors.
AUTHOR: Mukhopadhyay M.
SOURCE: Natural extracts using supercritical carbon dioxide., Published by: CRC Press, Boca Raton, 2000, 249-264 (19 ref.)
Mukhopadhyay M.
ISBN: 0-8493-0819-4
DOCUMENT TYPE: Book Article
LANGUAGE: English

AB An overview is given of the extraction of natural food colours, particularly using **supercritical carbon dioxide** (SCCD) extraction. The range of natural colour compounds, and the market, sources, and properties of them are introduced. The chapter then describes in more detail the characteristics, classification, plant sources, and physical properties of carotenoids, anthocyanins, betacyanins and other natural extracts used as food colours. Recovery by **supercritical carbon dioxide** of the following is discussed: carotenoids from grass, orange peel, **turmeric**, paprika, red chilli, carrot, marigold flowers, and annatto; anthocyanins; and betacyanins.

L3 ANSWER 24 OF 42 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 15
ACCESSION NUMBER: 2000:903242 CAPLUS
DOCUMENT NUMBER: 134:251779
TITLE: Partitioning of photosynthetically fixed 14CO2 into oil and curcumin accumulation in Curcuma longa grown under iron deficiency
AUTHOR(S): Dixit, Deeksha; Srivastava, N. K.
CORPORATE SOURCE: Central Institute of Medicinal and Aromatic Plants, Lucknow, 226 015, India
SOURCE: Photosynthetica (2000), 38(2), 193-197
CODEN: PHSYB5; ISSN: 0300-3604
PUBLISHER: Institute of Experimental Botany, Academy of Sciences of the Czech Republic
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Changes in leaf growth, photosynthetic efficiency, and incorporation pattern of photosynthetically fixed 14CO2 in leaves 1 and 2 from plant apex, in roots, and rhizome induced in Curcuma by growing in a solution culture at Fe concentration of 0 and 5.6 g m-3 were studied. 14C was incorporated into primary metabolites (sugars, amino acids, and organic acids) and secondary metabolites (essential oil and curcumin). Fe deficiency resulted in a decrease in leaf area, its fresh and dry mass, chlorophyll (Chl) content, and CO2 exchange rate at all leaf positions. The rate of 14CO2 fixation declined with leaf position, maximum being in the youngest leaf. Fe deficiency resulted in higher accumulation of sugars, amino acids, and organic acids in leaves at both positions. This is due to poor translocation of metabolites. Roots and rhizomes of Fe-deficient plants had lower concns. of total photosynthate, sugars, and amino acids whereas organic acid concentration was higher in rhizomes. 14CO2 incorporation in essential oil was lower in the youngest leaf, as well as incorporation in curcumin content in rhizome. Fe deficiency influenced leaf area, its fresh and dry masses, CO2 exchange rate, and oil and curcumin accumulation by affecting translocation of assimilated photosynthates.

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 25 OF 42 BIOTECHNO COPYRIGHT 2004 Elsevier Science B.V. on STN
DUPLICATE

ACCESSION NUMBER: 2000:30106397 BIOTECHNO
TITLE: Distribution of photosynthetically fixed .sup.1.sup.4CO.sub.2 into curcumin and essential oil in relation to primary metabolites in developing **turmeric** (Curcuma longa) leaves
AUTHOR: Dixit D.; Srivastava N.K.
CORPORATE SOURCE: N.K. Srivastava, Department of Plant physiology, Centr. Inst. of Med./Aromatic Plants, Lucknow 226015, India.
E-mail: root@cimap.sirnetd.ernet.in
SOURCE: Plant Science, (21 MAR 2000), 152/2 (165-171), 35 reference(s)
CODEN: PLSCE4 ISSN: 0168-9452
PUBLISHER ITEM IDENT.: S0168945299002265
DOCUMENT TYPE: Journal; Article
COUNTRY: Ireland
LANGUAGE: English
SUMMARY LANGUAGE: English
AN 2000:30106397 BIOTECHNO
AB Changes in essential oil, CO.sub.2 exchange rate and distribution of photosynthetically fixed .sup.1.sup.4CO.sub.2 into curcumin, essential oil, amino acids, organic acid and sugars were determined in developing leaves, rhizome and roots of **turmeric**. Of the total .sup.1.sup.4CO.sub.2 assimilated by plants, first, second, third and fourth leaves fix 31, 23, 21 and 9%, roots 4%, rhizome 6%, oil 0.01% and curcumin 4.6% of gin. fresh weight rhizome. Leaf area, its fresh and dry weight and CO.sub.2 exchange rate increase up to third leaf. The incorporation of .sup.1.sup.4CO.sub.2 into sugars was maximal followed by organic acid, amino acid and essential oil at all stages of leaf development. Assimilates translocated to roots and rhizome showed similar trend of incorporation in fractions as in leaves. Youngest developing leaves assimilated maximum .sup.1.sup.4CO.sub.2 into metabolites and essential oil. In rhizome curcumin constitutes a major metabolite. The incorporation of .sup.1.sup.4CO.sub.2 into metabolites and oil declined as the leaves matured with youngest leaf being physiologically most active. A major portion of .sup.1.sup.4CO.sub.2 assimilated is translocated to roots, find curcumin formation in rhizome. The study highlights that metabolites from the photosynthetic pathway are incorporated in curcumin. (C) 2000 Elsevier Science Ireland Ltd.

L3 ANSWER 26 OF 42 PROMT COPYRIGHT 2004 Gale Group on STN

ACCESSION NUMBER: 1999:333204 PROMT
TITLE: Primal Essence Spice Revival Spice Extract - Allspice; Anise; Basil; Black Pepper; Cardamom; Caraway; Cassia; Celery Seed; Chilli; Cinnamon; Clove; Coriander; Cumin; Dill; Fennel; Fenugreek; Garlic; Ginger; Nutmeg; Oregano; Pepper/Chilli; Rosemary; Sage; Thyme; Turmeric; Vanilla MANUFACTURER: Primal Essence, Inc. CATEGORY: 086 - Spices, Extracts & Seasonings.
SOURCE: Product Alert, (24 May 1999) Vol. 29, No. 10. ISSN: 0740-3801.
PUBLISHER: Marketing Intelligence Service Ltd.
DOCUMENT TYPE: Newsletter
LANGUAGE: English
WORD COUNT: 146
FULL TEXT IS AVAILABLE IN THE ALL FORMAT

AB Santa Monica, CA-based Primal Essence, Inc. offers a line of "concentrated water soluble **supercritical** fluid extracts" under the Primal Essence brand name. Called Spice Revival, the Spice Extracts include Allspice, Anise, Basil, Black Pepper, Cardamom, Caraway, Cassia, Celery Seed, Chilli, Cinnamon, Clove, Coriander, Cumin, Dill, Fennel, Fenugreek, Garlic, Ginger, Nutmeg, Oregano, Pepper/Chilli, Rosemary, Sage, Thyme, **Turmeric** and Vanilla. They are presented in 2 oz. (52ml) glass pump spray bottles that feature a "measured dosage pump mechanism which delivers the correct amount of spice concentrate;" it can "also release one drop at a time." According to literature, they contain "no artificial flavors, colors, chemicals, preservatives, alcohol, sweeteners, yeast, lecithin or caffeine." Copy further states, "The precious antioxidants, rich & exotic flavors, and natural phytochemicals of the plant all remain intact and ready for instant release." For sample retrieval information, please call: Marketing Intelligence Service, Ltd., (716) 374-6326.

Subscription: $600 per year as of 1/97. Published semimonthly. Contact Marketing Intelligence Service Ltd., 6473 D Route 64, Naples, NY 14512-9726. Phone (716) 374-6326. FAX (716) 374-5217.

L3 ANSWER 27 OF 42 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 1999-302641 [25] WPIDS
DOC. NO. CPI: C1999-088744
TITLE: Clear herbal extract solution useful for encapsulation in a soft gelatin capsule.
DERWENT CLASS: A11 A25 A96 B04
INVENTOR(S): LIN, J; OPPENHEIM, R C; TRUONG, H C
PATENT ASSIGNEE(S): (SCHB) SCHERER HOLDINGS PTY LTD R P
COUNTRY COUNT: 83
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9920289	A1	19990429	(199925)*	EN	29
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW					
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW					
AU 9896162	A	19990510	(199938)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE

WO 9920289	A1	WO 1998-AU878	19981022
AU 9896162	A	AU 1998-96162	19981022

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 9896162	A	Based on	WO 9920289

PRIORITY APPLN. INFO: AU 1997-9903 19971022
AN 1999-302641 [25] WPIDS
AB WO 9920289 A UPAB: 19990630
NOVELTY - A clear herbal extract solution suitable for encapsulation in a soft gelatin capsule, which comprises:
(i) a concentrated herbal extract (which is unsuitable by itself for direct encapsulation in a soft gelatin capsule); and
(ii) a fill liquid, which is compatible with the herbal extract and is specific for dissolving the herbal extract to form a clear solution.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:
(i) a soft gelatin capsule containing a clear herbal solution; and
(ii) a process for manufacturing a clear soft gelatin capsule, which comprises:
(1) combining a concentrated herbal extract and a fill liquid which is compatible with the herbal extract; and
(2) encapsulating the herbal extract in a soft gelatin capsule.
USE - The clear herbal extract solution is suitable for encapsulation in a soft gelatin capsule.
ADVANTAGE - It is possible to produce clear herbal extracts that are suitable for encapsulation in soft gelatin capsules and which also contain all the important active ingredients.

L3 ANSWER 28 OF 42 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 17
ACCESSION NUMBER: 2000:130923 BIOSIS
DOCUMENT NUMBER: PREV200000130923
TITLE: Antioxidative effects of turmeric, rosemary and capsicum extracts on membrane phospholipid peroxidation and liver lipid metabolism in mice.
AUTHOR(S): Asai, Akira [Reprint author]; Nakagawa, Kiyotaka; Miyazawa, Teruo
CORPORATE SOURCE: Laboratory of Biodynamic Chemistry, Tohoku University Graduate School of Agriculture, Sendai, 981-8555, Japan
SOURCE: Bioscience Biotechnology and Biochemistry, (Dec., 1999) Vol. 63, No. 12, pp. 2118-2122. print.
ISSN: 0916-8451.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 12 Apr 2000
Last Updated on STN: 4 Jan 2002
AB Phospholipid hydroperoxides (PLOOH) in the plasma, red blood cells (RBC) and liver of mice were measured after dietary supplementation for one week (1% w/w of diet) with a **turmeric** extract (curcuminoid), hexane extract of rosemary, and **supercritical** CO2-extracted capsicum pigment (supplemented with alpha-tocopherol to prevent fading). A lower PLOOH level was found in RBC of the spice extract-fed mice (65-74% of the non-supplemented control mice). The liver lipid peroxidizability induced with Fe2+ / ascorbic acid was effectively suppressed by dietary supplementation with the **turmeric** and capsicum extracts to mice. While no difference in the plasma lipids was observed, the liver triacylglycerol concentration of the **turmeric** extract-fed mice was markedly reduced to one-half of the level in the control mice. These findings suggest that these spice extracts could act antioxidatively in

vivo by food supplementation, and that the **turmeric** extract has the ability to prevent the deposition of triacylglycerols in the liver.

L3 ANSWER 29 OF 42 JICST-EPlus COPYRIGHT 2004 JST on STN
ACCESSION NUMBER: 1000539089 JICST-EPlus
TITLE: Extraction of **Turmeric** (Curcuma longa L.) by **Supercritical carbon dioxide**.
AUTHOR: GOPALAN B; GOTO M; KODAMA A; HIROSE T
CORPORATE SOURCE: Kumamoto Univ.
SOURCE: Kagaku Kogakkai Nenkai Kenkyu Happyo Koen Yoshishu, (1999) vol. 64th, pp. 724. Journal Code: X0547A (Fig. 3)
PUB. COUNTRY: Japan
DOCUMENT TYPE: Conference; Short Communication
LANGUAGE: English
STATUS: New

L3 ANSWER 30 OF 42 JICST-EPlus COPYRIGHT 2004 JST on STN
ACCESSION NUMBER: 1000187989 JICST-EPlus
TITLE: Response Surface Analysis for Extraction of **Turmeric** oil by **Supercritical** CO2.
AUTHOR: BEGAN G; GOTO M; KODAMA A; HIROSE T
CORPORATE SOURCE: Kumamoto Univ.
SOURCE: Koatsu Toronkai Koen Yoshishu (Program and Abstracts of Papers. High Pressure Conference of Japan), (1999) vol. 40th, pp. 58. Journal Code: L1222A
ISSN: 0917-6373
PUB. COUNTRY: Japan
LANGUAGE: English
STATUS: New
AB The process variables pressure, temperature and flow rate were studied for optimisation of total oil yield by response surface methodology following a Box - Behnken design of experiments. The results indicated: (a) a rise in the temperature of extraction leads to decrease in oil yield. (b) The optimum pressure for the extraction of oil was found to be 225 bar. (c) oil yield generally increased with an increase in flow rate. (d) the experimental yield are in good agreement with the predicted yiled. The response surface methodology approach used in this study was able to predict the extraction conditions necessary for a total yield of turmeric oil. (author abst.)

L3 ANSWER 31 OF 42 CABA COPYRIGHT 2004 CABI on STN
ACCESSION NUMBER: 1998:53857 CABA
DOCUMENT NUMBER: 19981404207
TITLE: Spices: flavor chemistry and antioxidant properties
AUTHOR: Risch, S. J.; Ho ChiTang; Ho, C. T.
SOURCE: Spices: flavor chemistry and antioxidant properties, (1997) pp. x + 253. many ref.
Publisher: American Chemical Society. Washington
ISBN: 0-8412-3495-7
PUB. COUNTRY: United States
DOCUMENT TYPE: Book
LANGUAGE: English
ENTRY DATE: Entered STN: 19980407
Last Updated on STN: 19980407
AB This book contains 19 papers: (1) spices: sources, processing and chemistry; (2) methods of bacterial reduction in spices; (3) the principal flavour components on fenugreek (Trigonella foenum-graecum); (4) vanilla; (5) onion flavour chemistry and factors influencing flavour intensity; (6) contribution of nonvolatile sulfur-containing flavour precursors of the genus Allium to the flavour of thermally processed Allium vegetables; (7) characterization of saffron flavour by aroma extract dilution analysis; (8) characterization of volatile and semivolatile components in powdered **turmeric** by direct thermal extraction GC-MS; (9) pungent flavour profiles and components of spices by chromatography and chemiluminescent

nitrogen detection; (10) **supercritical** fluid extraction of Allium species; (11) determination of glucosinolates in mustard by HPLC-electrospray MS; (12) reasons for the variation in composition of some commercial essential oils; (13) component analyses of mixed spices; (14) antioxidative activity of spices and spice extracts; (15) antioxidative effect and kinetics study of capsanthin on the chlorophyll-sensitized photooxidation of soyabean oil and selected flavour compounds; (16) curcumin: an ingredient that reduces platelet aggregation and hyperlipidaemia, and enhances antioxidant and immune functions; (17) antioxidant activity of lavandin (Lavandula x intermedia) cell cultures in relation to their rosmarinic acid content; (18) anti-inflammatory antioxidants from tropical Zingiberaceae plants: isolation and synthesis of new curcuminoids; (19) curcumin: a pulse radiolysis investigation of the radical in micellar systems: a model for behaviour as a biological antioxidant in hydrophobic and hydrophilic environments.

L3 ANSWER 32 OF 42 CABA COPYRIGHT 2004 CABI on STN DUPLICATE 18
ACCESSION NUMBER: 1998:177524 CABA
DOCUMENT NUMBER: 19980312810
TITLE: **Turmeric** (Curcuma longa L.) oleoresin extraction with **supercritical** CO2
Extracao de oleoresina de curcuma (Curcuma longa L.) com CO2 supercritico
AUTHOR: Chassagnez, A. L. M.; Correa, N. C. F.; Meireles, M. A. A.
CORPORATE SOURCE: LAOS/DEQ/CT, Universidade Federal do Para (UFPA), Rua Augusto Correa no. 01, Campus Universitario do Guama, 66050-970, Belem, Para, Brazil.
SOURCE: Ciencia e Tecnologia de Alimentos, (1997) Vol. 17, No. 4, pp. 399-404. 21 ref.
ISSN: 0101-2061
DOCUMENT TYPE: Journal
LANGUAGE: Portuguese
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 19981209
Last Updated on STN: 19981209

AB **Turmeric** oleoresin extraction experiments were carried out with **supercritical** CO2 to investigate the influence of rhizome pretreatment on oleoresin. **Turmeric** was dried at 70[deg] or 105[deg]C. Extractions were carried out at pressures of 200, 250 and 300 bar and a temperature of 45[deg]. Results showed the total yield and the content of curcumin present in the oleoresin. The amount of oleoresin extracted from the material dried at 70[deg] was the largest, while most of the curcuminoids remained in the solid material.

L3 ANSWER 33 OF 42 CIN COPYRIGHT 2004 ACS on STN
AB Capsein Bio-Lab Ltd. is setting up a project near Madras to manufacture natural colours on a commercial scale. The company has entered into an agreement with the USA-based Super-Critical Technology Consultants for the supply of technology. The company will extract natural colours from botanicals, such as leaves, flowers, fruits, seeds and rhizomes using super critical fluid extraction (SCFE), employing **carbon dioxide** at high pressure for the isolation of colours and other extractables. The production will begin with **turmeric** as the raw material.

L3 ANSWER 34 OF 42 FSTA COPYRIGHT 2004 IFIS on STN
ACCESSION NUMBER: 1998(01):T0028 FSTA
TITLE: Spices: flavor chemistry and antioxidant properties.
AUTHOR: Risch, S. J. (Editor); Chi-Tang Ho (Editor)
CORPORATE SOURCE: 1155 Sixteenth St., NW, Washington, DC 20036, USA; American Chemical Society. Price $99.95 Rutgers State Univ. of New Jersey, New Brunswick, NJ 08903, USA
SOURCE: ACS Symposium Series, (1997) No. 660, x + 253pp. ISBN

0-8412-3495-7, many ref.
ISSN: 0097-6156
DOCUMENT TYPE: Conference
LANGUAGE: English
AB This book provides a general overview of spice chemistry from both practical and historical perspectives. It is based on a symposium sponsored by the Division of Agricultural and Food Chemistry at the 211th National Meeting of the American Chemical Society which took place in New Orleans, Louisiana, on March 24-28, 1996. It is divided into 19 chapters arranged under the following section headings: General overview and methods (pp. 2-10, 6 reference); Flavor chemistry (pp. 12-64, 87 reference); Analytical techniques (pp. 66-174, many reference); and Antioxidant properties (pp. 176-243, many reference). Topics covered include: principal flavour components of fenugreek; vanilla; onion flavour chemistry and factors influencing flavour intensity; contribution of nonvolatile sulphur-containing flavour precursors of the genus Allium to the flavour of thermally processed Allium vegetables; characterization of saffron flavour by aroma extract dilution analysis; characterization of volatile and semivolatile components in powdered **turmeric** by direct thermal extraction GC-MS; pungent flavour profiles and components of spices by chromatography and chemiluminescent nitrogen detection; **supercritical** fluid extraction of Allium species; determination of glucosinolates in mustard by HPLC electrospray MS; reasons for the variation in composition of some commercial essential oils; component analyses of mixed spices; antioxidant activity of spices and spice extracts; antioxidative effect and kinetics study of capsanthin on the chlorophyll-sensitized photooxidation of soybean oil and selected flavour compounds; curcumin: an ingredient that reduces platelet aggregation and hyperlipidaemia, and enhances antioxidant and immune functions; antioxidant activity of lavandin (Lavandula x intermedia) cell cultures in relation to their rosmarinic acid content; anti-inflammatory antioxidants from tropical Zingiberaceae plants: isolation and synthesis of new curcuminoids; and curcumin: a pulse radiolysis investigation of the radical in micellar systems.

L3 ANSWER 35 OF 42 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1997:79398 CAPLUS
DOCUMENT NUMBER: 126:130697
TITLE: Application of Supercritical Fluid Extraction for Spices and Herbs with Pressures up to 800 bar
AUTHOR(S): Lack, E.; Seidlitz, H.
CORPORATE SOURCE: NATEX Prozesstechnologie GesmbH, Ternitz, A-2630, Austria
SOURCE: Process Technology Proceedings (1996), 12(High Pressure Chemical Engineering), 253-258
CODEN: PTPREM; ISSN: 0921-8610
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Examples of application of **supercrit**. fluid extraction on a laboratory plant using high pressure (up to 800 bar) for extraction of triglycerides, lecithins, and cholesterol from powdered egg yolk, defatting of almonds, extraction of cocoa butter from cocoa press cake, extraction of antioxidants from rosemary and other spices, extraction of natural dyes or pigments from chili, paprika and **turmeric**, extraction of lipids from coriander seeds, extraction of essential oils from cloves, chamomile, and cinnamon are presented. The advantages and pitfalls of this technique for the selected raw materials are discussed in comparison with other techniques.
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 36 OF 42 USPATFULL on STN
ACCESSION NUMBER: 95:27072 USPATFULL

TITLE: Use of turmeric in wound healing
INVENTOR(S): Das, Suman K., Jackson, MS, United States
Cohly, Hari Har P., Jackson, MS, United States
PATENT ASSIGNEE(S): University of Mississippi Medical Center, Jackson, MS, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5401504		19950328	
APPLICATION INFO.:	US 1993-174363		19931228	(8)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Rose, Shep K.
LEGAL REPRESENTATIVE: Wenderoth, Lind & Ponack
NUMBER OF CLAIMS: 6
EXEMPLARY CLAIM: 1
LINE COUNT: 367
AB Method of promoting healing of a wound by administering turmeric to a patient afflicted with the wound.

L3 ANSWER 37 OF 42 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1994:191340 CAPLUS
DOCUMENT NUMBER: 120:191340
TITLE: Method for the extraction of curcumin, a known food additive, from Curcuma longa
INVENTOR(S): Myagi, Hisashige; Shiroma, Tsunenori; Giho, Hideki; Hashimoto, Kinichi
PATENT ASSIGNEE(S): Kyodokumiai Okinawaken Kinosei, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06009479	A2	19940118	JP 1992-169647	19920626

PRIORITY APPLN. INFO.: JP 1992-169647 19920626
AB The title method involves : (1) extracting essential oils from Curcuma longa powder with supercrit. carbon dioxide (5 - 6 L/min at 100 - 300 kgf/cm2) ; (2) sending essential oil-containing carbon dioxide (obtained in step 1) to a container where pressure is reduced. After extract of essential oils, curcumin (I) is extracted from Curcuma longa powder by a mixture of EtOH and H2O. I is then converted to a water-soluble I cyclodextrin complex.

L3 ANSWER 38 OF 42 FROSTI COPYRIGHT 2004 LFRA on STN
ACCESSION NUMBER: 344156 FROSTI
TITLE: Spices - recent advances.
AUTHOR: Moyler D.A.
SOURCE: Spices, herbs and edible fungi., Published by: Elsevier, Amsterdam, 1994, 1-70 (178 ref.)
Charalambous G.
ISBN: 0-444-81761-1
DOCUMENT TYPE: Book Article
LANGUAGE: English
AB This chapter reviews the classification, historical background, storage, extraction and yield of spices. Reference is made to extraction with **carbon dioxide** as a solvent, and fractionation processes. The extraction, physicochemical characteristics and flavour and fragrance applications of the major extraction spices (celery seed, clove bud, coriander seed, ginger root, hop cones, nutmeg oil, mace oil, black pepper oil, pimento berry oil and vanilla) are described; and the

properties and applications of minor extraction spices (aniseed, anise star, basil, capsicum, caraway, cardamom, cumin, cassia, cinnamon, juniper, marjoram, oregano, parsley, rosemary, sage, savoury leaf, **turmeric** and thyme) are outlined.

L3 ANSWER 39 OF 42 FROSTI COPYRIGHT 2004 LFRA on STN
ACCESSION NUMBER: 308832 FROSTI
TITLE: Recommendations for Official Methods.
AUTHOR: DeVries J.; Bark D.J.; Wood R.; Peake A.E.; Brucciani J.C.; Krinitz B.; Smith R.; Hargreaves W.; Beljarrs P.; Egelhofer D.; Phillips J.G.; Committee on Foods II.
SOURCE: Journal of AOAC International, 1993, 76 (1), 182-185 (0 ref.)
NOTE: These recommendations submitted by the Committee have been adopted by the AOAC.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Recommendations relating to alcoholic beverages cover alcohol content, ascorbic acid in wine by HPLC, **carbon dioxide** in wine, ethanol in wine, ethyl carbamate, glycerol in wine, glycerol monooleate in wine, malic acid in wine, malt beverages and brewing materials, polydimethylsiloxane, sugars in wine, sulfur dioxide in wine, synthetic colours, tartrates in wine, and lead in alcoholic beverages. Recommendations concerning cereals and cereal products relate to the following topics: beta-glucan methodology, determination of crude protein by combustion, fat acidity, gliadin in gluten-free products, gluten in foods, iron, mineral analysis, near-infra-red methods, and phytates. Recommendations regarding chocolate and cacao products cover carbohydrate determination, alternative fats, shell in cacao products and total and solid fat content. Recommendations relating to methods for dietary fibre determination are presented. The recommendations relating to fats and oils deal with emulsifiers, hydrogenated fats, lower fatty acids, marine oils, olive oil adulteration, oxidised fats, sterols and tocopherols, and the detection of pork fat in other fats. The recommendations relating to fruit and fruit products are concerned with apple juice adulteration, the geographic origin of orange juice, the identification and characterisation of fruit juices, moisture in dried fruits, naringen and neohesperidine in orange juice, and sodium benzoate in orange juice. The recommendations relating to non-alcoholic beverages deal with ash in instant tea, caffeine and methyl xanthines, coumarin in vanilla beverages, cyclamate in cola, solvent residues in decaffeinated beverages, pyrrolizidine alkaloids in herbal teas, safrole in sassafras root, and quinine. The recommendations relating to processed vegetable products are concerned with aseptic processing, liquid chromatography determination of sugars, pH determination, total solids by microwave moisture analyser, and water activity measurement. The recommendations relating to spices and condiments deal with extractable colour and pungency of capsicum spices and oleoresins, curcumin in **turmeric**, moisture in dried spices, preparation of cassia oil, vinegar, and water activity. The recommendations relating to sugar and sugar products deal with amyloglucosidase activity; corn syrup and sugar products; enzyme methods; gas chromatographic methods; honey; lactose purity testing; maple sap, maple syrup and maple syrup products; oligosaccharides; near-infra-red methods; polarimetric methods; stable carbon isotope analysis; sugars in cereals; sugars in syrups; sulfites; visual appearance of sugar; and weighing, taring and sampling. The recommendations relating to vitamins and other nutrients deal with amino acids, automated methods, biotin, carotenoids, cholesterol, folic acid, nutrient assay of infant formula, iodine, protein in foods, sodium, thiamin, and vitamins A, D, E, K.

L3 ANSWER 40 OF 42 ANABSTR COPYRIGHT 2004 RSC on STN DUPLICATE 19
AB Online supercritical-fluid extraction - SFC using 20% methanol-modified

CO2 as the extractant (2 ml min.minus.1) was performed at 250 bar and 60°; the extract was passed through to the separation column held at 100 bar for analysis at 254 nm. Determination of curcumin was by HPLC. Modified CO2 removed turmerones and other volatile compounds and under optimized conditions gave >90% recovery of curcumin. The SFC method was comparable to HPLC.

L3 ANSWER 41 OF 42 USPATFULL on STN
ACCESSION NUMBER: 92:46888 USPATFULL
TITLE: Process for the supercritical extraction and fractionation of spices
INVENTOR(S): Nguyen, Uy, Edmonton, Canada
Evans, David A., Edmonton, Canada
Berger, Dietmar J., Edmonton, Canada
Calderon, Jaime A., Edmonton, Canada
PATENT ASSIGNEE(S): Norac Technologies Inc., Edmonton, Canada (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5120558		19920609	
APPLICATION INFO.:	US 1991-694255		19910501	(7)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Yeung, George
LEGAL REPRESENTATIVE: Ridout & Maybee
NUMBER OF CLAIMS: 11
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 4 Drawing Figure(s); 4 Drawing Page(s)
LINE COUNT: 968
AB A process for extracting spice to obtain oleoresin and fractionating the oleoresin into fixed and essential oil components is described. The extraction is performed on the ground spice using supercritical fluid carbon dioxide under a pressure of from about 400 bar to about 600 bar and at a temperature of from about 80° C. to about 120° C. A cascading continuous extraction method is preferred. Oleoresin fractions are precipitated from the supercritical fluid at reduced pressures in the ranges 280-380 bar and 100-200 bar at 80°-100° C., while a last fraction is obtained from the non-critical fluid at a pressure of 30-50 bar and a temperature of 0°-30° C.

L3 ANSWER 42 OF 42 FROSTI COPYRIGHT 2004 LFRA on STN
ACCESSION NUMBER: 596241 FROSTI
TITLE: Improved anti-inflammatory herbal composition and method of use.
INVENTOR: Newmark T.; Schulick P.
PATENT ASSIGNEE: New Chapter Inc.
SOURCE: PCT Patent Application
PATENT INFORMATION: WO 2002080682 A1
APPLICATION INFORMATION: 20020328
PRIORITY INFORMATION: United States 20010405
DOCUMENT TYPE: Patent
LANGUAGE: English
SUMMARY LANGUAGE: English
AB An herbal composition that effectively reduces inflammation in bones and joints in animals, primarily humans, is described. The invention effectively inhibits COX-2, without the undesirable side effects usually associated with traditional drug therapy or non-steroidal antiinflammatory drugs. The composition, which has antioxidant properties, is made up of herbal extracts that are prepared without the use of solvents. The invention may be administered orally or topically. The composition includes a therapeutically effective amounts of

postsupercritical **carbon dioxide** alcoholic extracts of ginger; therapeutically effective amounts of **supercritical carbon dioxide** extracts of rosemary, **turmeric**, oregano, ginger; and therapeutically effective amounts of hydroalcoholic extracts of holy basil, **turmeric**, Scutellariae baicalensis, rosemary, green tea, huzhang, Chinese goldthread, and barberry.